

Developing Student Professional Skills through Strategic Partnership in Vocational Education

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Abstract— Vocational high school students contribute 8.62% to the unemployment rate in 2024. This study aims to analyze efforts to overcome this problem, namely through the procurement of strategic cooperation to improve student competence. Strategic partnerships is a formal collaboration between educational institutions and partner companies outside the academic world. The research method used is a literature study to analyze various relevant variables. The development of strategic cooperation can be done through two methods: the use of the strategic partnership canvas model and the adaptation of planning strategies to appropriate implementation. Problems in the process of carrying out strategic cooperation can be overcome through proactive efforts from both parties by involving third parties, such as the government.

Keywords—*unemployment; vocational high school; strategic partnership*

I. INTRODUCTION

Education is a process of humanizing humans, meaning it is a tool to help students achieve physical and spiritual maturity and maturity to become whole humans from various aspects (Sumantri, 2015). Education in Indonesia is currently trying to improve competency achievements to compete in the era of the industrial revolution 5.0 in preparing for change to achieve long-term educational goals. One of the efforts made to welcome this era is by maximizing the abilities of students in vocational high schools.

The role of vocational education institutions is very important in preparing students to become skilled workers with adequate skills and meet the demands of the industrial world, considering that vocational school graduates are equipped with the skills needed to transition to the world of work (Budiarto et al., 2024). According to www.bps.go.id (2021), the number of vocational high school students in Indonesia reached 5,258,426 people spread across 14,077 schools. This data indicates that education in Indonesia facilitates students to develop their interests and talents to meet today's industrial qualifications. Based on the Ministry of Manpower's predictions, the need for skilled workers in Indonesia will reach 113 million by 2030 (Mitrasdudi, 2022).

Currently, Indonesia still needs a supply of skilled human resources to work as many as 3.7 million per year

(Novarina, 2017). In addition, it is known from the results of the Central Statistics Agency (2024), the number of workers in Indonesia in 2024 reached 149.38 million. However, of that number, the open unemployment rate (TPT) in Indonesia in February 2024 reached 4.82%. Vocational high school students contributed the most to the unemployment rate, as much as 8.62% in 2024 (BPS, 2024). In more detail, the following is a graph of the number of open unemployment based on year and level of education.



Source: <https://www.inilah.com/angkat-pengunjuguran-besar-jenjang-pendidikan>

One of the reasons behind the high unemployment rate at the vocational high school level is the lack of competencies mastered compared to industry needs. Vocational competencies mastered by students play a role in students' readiness to enter the workforce. Therefore, it is important for vocational education institutions to improve the quality of human resources. One effort to maximize the competency of vocational high school graduates is through collaboration with companies that have a vision and mission that is in line with the vocational high school itself. According to Chai et al. (2015), building partnerships with external organizations and entities can develop the teaching of these skills in a more active way, rather than educational practices that are dominated by passive learning. In addition, through partnerships, students will get to know the work environment

and workflow to practice competencies that have not been taught in schools (Setiawaty & Fahmi, 2022)

That is why vocational high schools need to involve cooperation with the business world and the industrial world (DU/DI). Collaboration can be done through the provision of training to improve the quality of workers to match their expertise (Afrina, 2018). Building strategic collaboration by vocational institutions, especially vocational high schools, can also be done through cooperation with experts in certain fields. These experts can contribute by speaking directly with students to share their knowledge and introduce students to information that is unique to a particular profession while offering students a glimpse of the skills they need for their future careers. Diverse opportunities to learn about careers provide students with insight into a variety of career possibilities and with new support regarding the importance of skills that can help people adapt to the workplace and its ever-evolving challenges (Grimes & Cohen, 2022).

II. METHOD

This study uses a qualitative approach with a literature study method to deeply reveal how strategic partnerships can support the development of students' professional skills in Vocational High Schools (SMK). A qualitative approach was chosen because it allows researchers to understand the perceptions, experiences, and insights of the various parties involved, providing a more vivid and contextual picture. The literature study was conducted by reviewing various academic and non-academic sources, including journals, books, research reports, and policy documents related to vocational education and the development of professional skills through structured collaboration.

The literature review process begins with formulating a clear and specific research question, which will help determine the criteria for relevant literature to be further analyzed. Once the criteria are established, a search is conducted on various credible databases, ensuring that the selected sources are reliable and appropriate to the research context. Each finding from the literature is critically studied to identify key themes, such as the professional skills needed by vocational high school students, successful forms of strategic partnerships, and the barriers and opportunities that may be faced in implementing such partnerships in vocational education environments.

The final step is to conduct a thematic analysis to find the main patterns or categories in the literature that has been collected. In this process, the researcher attempts to explore the themes that are most relevant to the research questions, including what skills vocational high school students must master and how strategic collaboration can facilitate it. The final result of this analysis is expected to provide a deep and comprehensive understanding of how strategic partnerships can be an effective means of improving students' professional skills, strengthening their capacity to face challenges in the

world of work, and opening up more opportunities for their future development.

III. RESULTS & DISCUSSION

In the discussion for the research entitled "Developing Student Professional Skills through Strategic Partnership in Vocational Education" with the literature study method, several important aspects that need to be discussed include:

1. The Concept of Strategic Partnership in Vocational Education

Based on Undang-undang Republik Indonesia No. 9 1995, partnership is defined as cooperation between small businesses and medium or large businesses accompanied by coaching and development by medium or large businesses by considering the principles of mutual need, mutual strengthening, and mutual benefit (BPHN, 2012). Strategic partnership is a formal collaboration between educational institutions and partner organizations outside the academic world. This partnership is characterized by the involvement and participation of management, both at the educational institution and partner levels. This partnership is based on mutual benefit, long-term commitment, common and long-term goals, common goals and challenges, and includes a variety of forms of collaboration and joint activities. This relationship produces and adds mutual benefits and values that cannot be achieved by each party alone (Eriksson, 2020).

According to the Directorate General of Vocational Education 2020-2024, strategic partnerships in the context of vocational education refer to the enhancement of proactive and progressive collaboration and cooperation between the world of education and the world of work supported by various incentive policies in their funding, and include mapping of skills needs, including expanding labor market information. Research from Dubrovski (2020) shows that strategic partnerships emphasize collaborative development, synergizing in improving programs, and complementing each other for all programs within the scope of the cooperation that is built. In addition, strategic partnerships are also long-term oriented to achieve sustainable goals. Meanwhile, conservative alliances focus more on interdependent relationships and have an uncertain time span of cooperation, adjusted to the progress and improvement of the organization or business of one party (Nardella, 2023).

Strategic partnership efforts between vocational-based educational institutions and external parties can be built by considering several models studied by Dang & Nguyen (2023) as follows:

Approach	Description	Key Benefits
Sectoral Training	Emphasizes collaboration with industry, alignment with specific sectoral needs, and engagement with industry training organizations. Solution-oriented through training tailored to industry needs.	<ol style="list-style-type: none"> 1. Training programs are relevant, up-to-date and adaptive to evolving skills needs. 2. The training process, curriculum content, and delivery methods are tailored to the specific technical, practical, and professional skills that need to be mastered in specific sectors. 3. Potential to receive financial support from industry stakeholders, government agencies, or public-private partnerships.
Dual System	Combining theoretical education in vocational schools and practical training in companies, allowing students to acquire the skills and knowledge necessary for a specific job.	Facilitate students with real experience into a particular field. This is because when students have completed the training, they will not only have the technical knowledge needed, but will also have direct experience in a particular job (Emit, 2016).
Local Partnership	Emphasizes collaboration between vocational education institutions, local industry, and government agencies to tailor education and training programs to the specific needs of the regional labor market (Lassnigg, 2016).	<ol style="list-style-type: none"> 1. Diverse collaboration to achieve optimal cooperation. 2. The curriculum, learning content, and delivery methods prioritize relevance and effectiveness. 3. Support local economic growth, increase employment opportunities, and contribute to overall regional development.

2. The Influence of Strategic Partnerships on Students' Professional Skills Development

Through strategic collaboration with industry partners, vocational education institutions can understand what the private sector really needs and then prepare the appropriate workforce. In addition, companies also provide advice and recommendations for curriculum design and practical and theoretical development in schools that are relevant to those implemented in business/industry. Industry partners also provide opportunities for teachers to stay in touch with companies (ETF, 2021). Through the preparation of teaching modules, practical facilities, and facilitating projects from industry, vocational education institutions can improve their students' competencies efficiently (Sumbodo et al., 2019).

In addition to technical skills, the industry also needs individuals who master non-technical skills (soft skills). According to Sumbodo et al. (2019), soft skills refer to the

abilities that individuals have in responding to their environment. This involves interpersonal skills, such as self-management skills and relational skills, including how a person interacts with others, skills that help a person apply their knowledge in the world of work. Research from Putra (2021) states that the main soft skills needed for the world of work include: 1) communication, 2) discipline, and 3) leadership. In developing these skills, partnerships with industry play an important role, including by providing a work environment through internships. This effort can provide opportunities for students to practice their non-technical skills, such as developing communication and teamwork. Through workshop activities held by the industry, students can also be equipped with new insights and provide opportunities for them to interact with others.

3. The Role of Educational Institutions and Industry in Partnership

Strategic cooperation between partners and educational institutions needs to pay attention to the division of roles that are appropriate and appropriate. Schools and companies must appoint at least one coordinator who has adequate competence and appropriate personal qualities. They must understand the systems and conditions that occur in the academic world and the world of work (Eriksson, 2020). In general, both parties can analyze the formation of cooperation using the Strategic Partnership Canvas developed by Frølund et al. (2018). Here are some indicators in designing strategic cooperation:

Indicator	Question
Objective	What is the desired goal of the collaboration?
Focus Areas	What are the focuses of the collaboration and where does it relate to the objectives?
Partners	Who are the key partners, and based on what criteria are they selected?
Format	Which form of collaboration best fits your focus and goals?
People, processes and organizing	What kind of people, processes and organizational structures can support collaboration?
Follow-up	What key indicators can be used to follow up on the results of the collaboration?

In detail, based on the research results of Baskara et al. (2024), there are several aspects that schools need to pay attention to in establishing cooperation with industry: 1) Analyzing conditions and problems as well as objectives to prepare students to enter the world of work. 2) Selecting focus areas for cooperation to align the school curriculum with the company system. 3) Presenting company workers as guest teachers. According to Khotimah (2024), student skills and the industrial atmosphere can be described by involving guest teachers in learning. Thus, schools can analyze the

improvement of student competencies through programs or projects that have been taught by industry. Meanwhile, industry can ensure the effectiveness of cooperation through the provision of mentoring programs, internships, and real work projects to support students' practical training. In addition, industry involvement is also important in curriculum design to ensure that educational programs meet the needs of the workforce (Ahmad et al., 2024).

However, there are several challenges in building industry-school partnerships. The most common obstacles or challenges are time, budget, and understanding the impact of the partnership. In some cases, higher-level executives and high-ranking school coordinators, such as principals, have the potential to hinder the formation of partnerships. This reality shows the complexity and interconnectedness of various stakeholders (O'dea et al., 2022).

4. Long-Term Impact of Strategic Partnerships on Students and Schools

According to Ariefianto et al. (2024), strategic partnerships involving structured collaboration between educational institutions and industry can facilitate vocational institutions to gain access to the latest technology, broader resources, and information on industry trends. This allows educational institutions to develop programs that not only focus on technical skills, but also support non-technical skills and workforce capabilities to adapt to changes in the industrial world. In addition, vocational institutions will also have a reputation and branding when establishing partnerships with companies.

In line with these benefits, graduates' opportunities to get opportunities and jobs will also be wider, plus there is a relevance between the competencies they have and the needs of the industry (Syauqi et al. 2022). Students' critical thinking skills and interpersonal relationships increase sharply because there are practical projects provided by partner industries. Afdareza et al. (2020) stated that through in-depth student involvement in industrial projects, they will be challenged to apply the knowledge they have gained, as well as instill a deep understanding of concepts and critical thinking.

5. Case Studies or Best Practices in Strategic Partnerships

The implementation of strategic partnerships has been carried out at SMK Muhammadiyah 1 Klaten Utara. Research by Baskara et al. (2024) shows that the management of cooperative relations between SMK Muhammadiyah 1 Klaten Utara and industry has been running well. The processes involved in implementing school partnerships include creating efficient cooperation, developing the skills

of educators and education personnel, and building interest in partnerships.

The strategic steps taken to build cooperation from start to finish include: 1) Planning. The school reviews conditions and identifies problems by referring to the school's vision so that it produces a program to achieve it. 2) Organizing. The educational staff who will be responsible for this cooperation are determined at this stage. After that, those responsible determine priority programs, delegate tasks and authorities to the human resources who will be involved, and coordinate with partners. 3) Implementation. The school implements several activities, in the form of aligning the learning curriculum, internships, holding guest teacher programs, entrepreneurship workshops, and recruiting workers. Finally, 4) evaluation. The school measures the progress and results achieved according to predetermined standards. In addition, SMK Muhammadiyah 1 Klaten Utara makes improvements to competencies in the curriculum internally and externally involving industry.

6. Obstacles and Solutions in Implementing Strategic Partnerships

The implementation of strategic cooperation between vocational education institutions and companies is not free from problems. There are several main challenges faced in implementing partnerships according to Ravichandran (2023), namely the lack of coordination between schools and companies. This makes it difficult for students to find appropriate and fast internship programs. Limited training facilities and infrastructure, including modern tools and resources, can also hinder the facilitation of a real work environment for students. Obstacles due to limited funds are also a challenge (Primiana et al., 2016), many vocational schools and industrial centers find it difficult to allocate funds because they have other priorities, this results in the quality of facilities and program services for student empowerment being less than optimal.

All of the above challenges can hinder the sustainability of cooperation. Therefore, a solution that is innovative and solutive is needed, including through the development of open and transparent cooperation, effective allocation of funds for investment in adequate infrastructure and tools, and cooperation with other stakeholders, such as the government, training centers, or non-profit organizations that can meet resource limitations.

7. Policy Implications and Recommendations for the Future

Based on the results of this analysis, there are several policy implications and recommendations to improve strategic partnership efforts between vocational education and the business world or industrial world (DU/DI):

1. The government allocates incentive funds or grants for the development of adequate and proper school infrastructure, and provides subsidies for industry to optimize the provision of internship opportunities for students.
2. Industries create special programs to provide opportunities for students, which can include providing opportunities for students to visit and do work trials at companies for a certain period of time to introduce and align student abilities with available needs.
3. The school provides additional adaptive training for teachers on a regular basis so that the skills they possess and teach can continue to be relevant to developments in the industrial world.

IV. CONCLUSION

Strategic partnership is a formal collaboration between educational institutions and partner companies outside the academic world that involves synergistic management. This cooperation is carried out by considering the benefits for both parties that are planned carefully and coherently. The development of strategic cooperation can be done through two methods: the use of the strategic partnership canvas model and the adaptation of planning strategies to appropriate implementation. Problems that occur in the process of carrying out cooperation, such as the lack of adequate facilities and infrastructure can be overcome through proactive efforts from both parties by involving third parties, such as the government.

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